

1 48. (Amended) An apparatus according to Claim 22, wherein:
2 said image processing section being further operative to:
3 select an image in response to a determination that a
4 previously moving object has become stationary.

1 49. (Amended) An apparatus according to Claim 22, wherein:
2 said image processing section being further operative to:
3 select an image in response to a determination a
4 previously stationary object has started moving.

Cancel claims 50, 51 and 55.

REMARKS

The claims are claims 1, 3 to 6, 9 to 12, 15 to 17, 22, 25, 27, 29, 40 to 43, 46 to 49, 52 to 54 and 56.

Claims 8 to 12 and 45 to 49 are amended. Claims 4, 7, 8, 13, 14, 44, 45, 50, 51 and 55 are canceled. Claims 8 to 12 have been amended to incorporate limitations of canceled base claim 7. Claims 45 to 49 have been amended to incorporate limitations of canceled base claim 44.

Claims 1, 3 to 6, 9 to 13, 15 to 17, 22, 25, 29 and 40 to 43, 46 to 49 and 52 to 54 were rejected under 35 U.S.C. 103(a) as made obvious by the combination of Seeley et al U.S. Patent No. 6,069,655 and Gorr et al U.S. Patent No. 5,961,571.

Claims 1, 22, 25 and 29 recite subject matter not disclosed in the combination of Seeley et al and Gorr et al.. Claims 1 and 25 recite "automatically selecting a single image of each identified object using selection criteria." Claims 22 and 29 similarly recite the image processing section is operative to "automatically

select a single image of each identified object utilizing selection criteria."

The FINAL REJECTION states at page 3, lines 4 to 8:

"automatically select a single image of each identified object utilizing selection criteria (col.10, lines 19-31; Seeley discloses the selection of the identifying object information by using selection criteria, panning, tilting, or zooming into the identifying information in an event of interest; also note log or list of the saved identifying information is generated);"

The cited portion of Seeley et al (column 10, lines 19 to 31) states:

"When viewing of one scene is completed, another camera is selected by the operator or CAC. SCU 12 accordingly suspends detection from the newly selected camera, and places the previously selected camera back into its surveillance mode. For the selected camera the operator or CAC is free to pan, tilt or zoom the camera to obtain a better view of the scene, or a portion of a scene which is of interest. As part of the tour, selected cameras may be required (preprogrammed) to view particular areas of the premise which are of interest. The CAC generates and maintains a log for each tour containing information as to when performed, cameras used, operator notes, etc."

The Applicant respectfully submits that the panning, tilting or zooming a selected camera taught in this portion of Seeley et al fails to disclose or make obvious automatic selection of an image including an identified object. In particular, this portion of Seeley et al fails to mention selection of an image. Instead Seeley et al teaches control of the image via panning, tilting and zooming. Accordingly, claims 1, 22, 25 and 29 are allowable over the combination of Seeley et al and Gorr et al.

Claims 1, 22, 25 and 29 recite further subject matter not disclosed in the combination of Seeley et al and Gorr et al..

Claims 1 and 25 recite "saving the selected image of each identified object." Claims 22 and 29 similarly recite the image processing section is operative to "save the selected image of each identified object." The FINAL REJECTION states at page 3, lines 9 to 12:

"save the selected image of each identified object (col. 15, lines 24-30; Seeley discloses the selection of image information from the detected images; further, Seeley discloses the storing or saving of the image information into picture buffer 40 of figure 7)"

The cited portion of Seeley et al (column 15, lines 24 to 30) states:

"Upon request by the operator, "thumbnails," or abbreviated snapshots are transmitted to a workstation 106 at the central station where they can be arranged in a mosaic pattern by the operator for his or her viewing. After viewing the thumbnails, the operator can select one or more of the images for transmission from SCU 12 to the system control."

The Applicant respectfully submits that the selected thumbnail of the cited portion of Seeley et al is not taught as the automatically selected image. The recitations of claims 1, 22, 25 and 29 require that the saved image be the selected image of the object. In contrast, Seeley et al includes no teaching that the saved thumbnail is the image supposedly automatically identified as taught at column 10, lines 19 to 31. Since claims 1, 22, 25 and 29 require these to be the same images and Seeley et al fails to teach these are the same, claims 1, 22, 25 and 29 are allowable over the combination of Seeley et al and Gorr et al.

Claims 3 to 6, 9 to 12, 40 to 43 and 46 to 49 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Each of claims 3 to 6, 8 to 12, 40 to 43 and 45 to 49 recite specific selection criteria for the automatic selection of

an image including a tracked object. The FINAL REJECTION at page 4, lines 7 to 16 cite portions of Seeley et al point out selection criteria taught in Seeley et al. None of the selection criteria noted in the FINAL REJECTION is the same as the selection criteria of claims 3 to 6, 8 to 12, 40 to 43 and 45 to 49. The response filed June 3, 2002 at page 14, line 8 to page 15, line 25 points out the recitations of claims 3 to 6, 8 to 12 that are not taught in Seeley et al. The FINAL REJECTION fails to point out where either Seeley et al or Gorr et al make obvious these particular criteria. Accordingly, claims 3 to 6, 8 to 12, 40 to 43 and 45 are allowable over the combination of Seeley et al and Gorr et al.

Claims 3 and 40 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claim 3 recites the image selection process uses "image selection criteria which are intended to lead to the selection of an image in which the face of a detected person is visible and large." Claim 40 similarly recites that the image processing section is operative to "use image selection criteria which are intended to lead to the selection of an image in which the face of a detected person is visible and large." The Applicant respectfully submits that neither Seeley et al nor Gorr et al includes any teaching of attempting to detect a "visible and large" image of a person's face. The FINAL REJECTION fails to point out any such teaching in the references. Accordingly, claims 3 and 40 are allowable over the combination of Seeley et al and Gorr et al.

Claims 4 and 41 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claim 4 recites "selecting the selected image for the given change region by discarding images from the set in which a lowermost side of the bounding box is higher than in other images of the set, and by selecting from the remaining images of the set an image in which a size of the bounding box is larger than in the other remaining

images of the set." Claim 41 similarly recites that image processing section is operative to "select the selected image for the given change region by discarding images from the set in which a lowermost side of the bounding box is higher than in other images of the set, and by selecting from the remaining images of the set an image in which a size of the bounding box is larger than in the other remaining images of the set." The Applicant respectfully submits that neither Seeley et al nor Gorr et al includes any teaching regarding the lowermost side or the size of a bounding box for a given change region. The FINAL REJECTION fails to point out any such teaching in the references. Accordingly, claims 4 and 41 are allowable over the combination of Seeley et al and Gorr et al.

Claims 5 and 42 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claims 5 and 42 recite the automatic selecting uses "image selection criteria which cause a current image to be selected over a prior image if a lowermost point of a detected change region is lower in the current image than in the prior image." The Applicant respectfully submits that neither Seeley et al nor Gorr et al includes any teaching regarding the lowermost point of a detected change region. The FINAL REJECTION fails to point out any such teaching in the references. Accordingly, claims 5 and 42 are allowable over the combination of Seeley et al and Gorr et al.

Claims 6 and 43 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claims 6 and 43 recite the automatic selecting uses "image selection criteria which cause a current image to be selected over a prior image if a detected change region has increased in size relative to a prior image." The Applicant respectfully submits that neither Seeley et al nor Gorr et al includes any teaching regarding the size of a detected change region. The FINAL REJECTION fails to point out any such

teaching in the references. Accordingly, claims 6 and 43 are allowable over the combination of Seeley et al and Gorr et al.

Claims 9 and 46 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claims 9 and 46 recite selection of an image upon "detection of the absence of a previously detected object". The Applicant respectfully submits that neither Seeley et al nor Gorr et al includes any teaching regarding the absence of a detected object. The FINAL REJECTION fails to point out any such teaching in the references. Accordingly, claims 9 and 46 are allowable over the combination of Seeley et al and Gorr et al.

Claims 10 and 47 recite events not made obvious by the combination of Seeley et al and Gorr et al. Claims 10 and 47 recite selection of an image upon detection that "an object has remained within a predefined region of the area for a specified time interval." While Seeley et al teaches detection of intrusion events within the video sequence, Seeley et al fails to teach the event of an object remaining within a region for a length of time. The FINAL REJECTION fails to point out any such teaching in the references. The FINAL REJECTION fails to point out any such teaching in the references. Accordingly, claims 10 and 47 are allowable over the combination of Seeley et al and Gorr et al.

Claims 11 and 48 recite events not made obvious by the combination of Seeley et al and Gorr et al. Claims 11 and 48 recite selection of an image upon "determination that a previously moving object has become stationary.." While Seeley et al teaches detection of intrusion events within the video sequence, Seeley et al fails to teach the event of a moving object stopping. The FINAL REJECTION fails to point out any such teaching in the references. The FINAL REJECTION fails to point out any such teaching in the references. Accordingly, claims 11 and 48 are allowable over the combination of Seeley et al and Gorr et al.

Claims 12 and 49 recite events not made obvious by the combination of Seeley et al and Gorr et al. Claims 12 and 49 recite selection of an image upon "determination a previously stationary object has started moving." While Seeley et al teaches detection of intrusion events within the video sequence, Seeley et al fails to teach the event of a stationary object beginning to move. The FINAL REJECTION fails to point out any such teaching in the references. The FINAL REJECTION fails to point out any such teaching in the references. Accordingly, claims 12 and 49 are allowable over the combination of Seeley et al and Gorr et al.

Claims 15, 17, 52 and 54 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claims 15, 17, 52 and 54 recite "determining a bounding box with just large enough to completely contain the detected object" and saving "a portion of a detected image which includes the detected object corresponding to the bounding box." The FINAL REJECTION states at page 5, lines 5 to 8:

"in col.10, lines 19-31, Seeley discloses the that either the operator or the CAC, central alarm computer, can zoom in the camera on the desired object or scene of interest, and when an object is zoomed, a bounding box appears on the object or scene of interest"

This teaching of Seeley et al differs from the recitations of claims 15, 17, 52 and 54 is two ways. This portion of Seeley et al teaches zooming without teaching that the zoomed display is "just large enough to completely contain the detected object." Seeley et al teaches saving the entire zoomed image without teaching "saving a portion of a detected image which includes the detected object corresponding to the bounding box." Accordingly, claims 15, 17, 52 and 54 are allowable over the combination of Seeley et al and Gorr et al.

Claims 16, 17, 53 and 54 recite subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claims 16 and 53 recite "saving one of the detected images as a reference image at a first resolution, and wherein said step of saving the selected image is carried out by saving the bounding box enclosing the selected image at a second resolution which is higher than the first resolution." Respective base claims 15 and 52 recite that this bounding box is "just large enough to completely contain the detected object." Claims 17 and 54 recite "saving one of the detected images as a reference image having a first resolution, wherein said step of saving the selected image is carried out by determining a bounding box with just large enough to completely contain the detected object and saving at a second resolution a portion of a detected image which includes the detected change region corresponding to the bounding box, the second resolution being greater than the first resolution." Seeley et al does disclose image data at full resolution and thumbnail or abbreviated snapshots. Seeley et al fails to teach that any image saved is limited to the bounding box enclosing an identified object. The thumbnails disclosed in Seeley et al are reduced resolution images of the snapshots, which are the full resolution camera output. The thumbnails of Seeley et al are not a portion of the image as claimed but the whole image at reduced resolution. Employing the zoom taught in Seeley et al at column 10, lines 19 to 31 would result in both the snapshot and the thumbnail showing the zoomed image. Thus the thumbnail cannot be the claimed "portion of the image." Further, Seeley et al teaches that the snapshots are stored. However, Seeley et al never teaches that the thumbnails are stored. The Applicants respectfully submit that the thumbnails are formed from the snapshots as they are viewed. Lastly, even if the thumbnails are stored, they must be stored at a lower

resolution than the snapshots. The FINAL REJECTION states at page 5, lines 11 to 13:

"(note in figure 8B, the reference image is saved at a first resolution, a thumbnail image with a lower resolution where as in figure 8A, the reference image is saved at higher resolution, at 'full resolution')."

On the contrary, claims 16, 17, 53 and 54 recite that the portion of the reference image is saved at the higher resolution. This is the opposite relationship than that cited in the FINAL REJECTION. Accordingly, claims 16, 17, 53 and 54 are allowable over the combination of Seeley et al and Gorr et al.

Claims 17 and 54 recite further subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claims 17 and 54 recite "displaying the reference image at the first resolution, displaying the bounding box enclosing the selected image within the reference image at the first resolution, and displaying the bounding box enclosing the selected image separately from the reference image and at the second resolution." This subject matter is described in the application at page 19, lines 24 to 37, page 20, lines 20 to 29 and illustrated in Figure 8. Figure 8 illustrates display of the reference image 111 with the object (person 86) and bounding box 85 overlain on the reference image. Figure 8 also illustrates a separate display 121 of the selected image. Seeley does teach display of the same image data in full resolution (snapshot) and in reduced resolution (thumbnail). However, in Seeley et al both the snapshot and the thumbnail show the entire camera frame. In Seeley et al the thumbnail is not limited to the bounding box enclosing the identified object as recited in claims 17 and 54. Claims 17 and 54 recite that the bounding box is displayed at a higher resolution than the reference image, while Seeley et al teaches the thumbnails are displayed at

the lower resolution. Seeley et al also fails to teach that the bounding box is displayed within the reference image. Accordingly, claims 17 and 54 are allowable over the combination of Seeley et al and Gorr et al.

Claims 25 and 29 recite further subject matter not made obvious by the combination of Seeley et al and Gorr et al. Claim 25 recites "automatically saving information which identifies the path of movement of the object, said information being retained after the object is no longer present in newly detected images." Claim 29 similarly recites the image processing section operates to "automatically save information which identifies the path of movement of the object, and to retain the information after the object ceases to be present in current detected images." The Applicant respectfully submits that Seeley et al fails to teach saving this motion track information after the object is no longer present. Accordingly, claims 25 and 29 are allowable over the combination of Seeley et al and Gorr et al.

Claims 27 and 56 were rejected under 35 U.S.C. 103(a) as made obvious by the combination of Seeley et al U.S. Patent No. 6,069,655, Gorr et al U.S. Patent No. 5,961,571 and of Baxter U.S. Patent No. 5,966,074.

Claims 27 and 56 recite subject matter not made obvious by the combination of Seeley et al, Gorr et al and Baxter. Claims 27 and 56 recite saving "an identification of an event associated with the detected object." Claim 27 recites "displaying on the reference image the identification of the event." Claim 56 similarly recites "display via said display device said reference image ... and said identification of said event on said reference image." This subject matter is disclosed in the application at page 20, lines 7 to 19 and illustrated in Figure 8. Note the ENTER label 116 and EXIT label 117 in Figure 8. Neither Seeley et al, Gorr et al nor Baxter include any teaching regarding display of event labels on a

reference image. Thus claims 27 and 56 are allowable over the combination of Seeley et al. Gorr et al and Baxter.

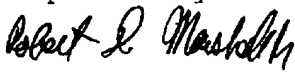
The Applicants respectfully request entry and consideration of this amendment. Entry of this amendment is proper at this time because the amendment serves only to cancel rejected claims. Thus no new search or reconsideration is required.

The Applicants respectfully submit that all the present claims are allowable for the reasons set forth above. Therefore early entry of this amendment, reconsideration and advance to issue are respectfully requested.

If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' attorney at the below listed telephone number and address to facilitate prosecution.

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Respectfully submitted,


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Note inserted text is marked by underlining and deleted text is marked by ~~strikeout~~.

In the Claims

Please amend the claims as follows:

Cancel claims 7 and 8.

1 9. (Amended) A method according to Claim 7 1, wherein said
2 ~~predefined event includes~~ selecting step is carried out in response
3 to detection of the absence of a previously detected object.

1 10. (Amended) A method according to Claim 7 1, wherein said
2 ~~predefined event includes~~ selecting step is carried out in response
3 to detection of a situation in which an object has remained within
4 a predefined region of the area for a specified time interval.

1 11. (Amended) A method according to Claim 7 1, wherein said
2 ~~predefined event includes~~ selecting step is carried out in response
3 to a determination that a previously moving object has become
4 stationary.

1 12. (Amended) A method according to Claim 7 1, wherein said
2 ~~predefined event includes~~ selecting step is carried out in response
3 to a determination a previously stationary object has started
4 moving.

Cancel claims 13, 14, 26, 44 and 45.

1 46. (Amended) An apparatus according to Claim 44 22, wherein:
2 said image processing section ~~wherein~~ being further operative

3 to:

4 ~~said predefined event includes~~ select an image in
5 response to detection of the absence of a previously detected
6 object.

1 47. (Amended) An apparatus according to Claim 44 22, wherein:
2 said image processing section ~~wherein~~ being further operative

3 to:

4 ~~said predefined event includes~~ select an image in
5 response to detection of a situation in which an object has
6 remained within a predefined region of the area for a
7 specified time interval.

1 48. (Amended) An apparatus according to Claim 44 22, wherein:
2 said image processing section ~~wherein~~ being further operative

3 to:

4 ~~said predefined event includes~~ select an image in
5 response to a determination that a previously moving object
6 has become stationary.

1 49. (Amended) An apparatus according to Claim 44 22, wherein:
2 said image processing section ~~wherein~~ being further operative

3 to:

4 ~~said predefined event includes~~ select an image in
5 response to a determination a previously stationary object has
6 started moving.

Cancel claims 50, 51 and 55.